REMARKS

In the captioned application, claims 1-2, 5-15, 18-22, and 37 stand rejected under 35 U.S.C. § 112, paragraphs 1 and 2, as lacking enablement and being indefinite. In addition, claims 1-22 and 37 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kim et al., in *J. Clin. Invest.*, 101(2):289-94 (1998), in view of Pfister et al., in U.S. Patent No. 5,654,304. Applicants traverse each of these rejections in turn, and present the arguments below in support of Applicants' belief that claims 1-2, 5-15, 18-22, and 37 are definite and fully enabled in accordance with section 112 of the patent law, and that claims 1-22 and 37 are not obvious.

Claims 1-2, 5-15, 18-22, and 37 stand rejected under 35 U.S.C. § 112, paragraph 2, as being indefinite. In particular, the Examiner contends that Applicants' use of the term "protease inhibitors" "fail[s] to clearly set forth the metes and bounds of the patent protection desired." Further, the Examiner contends that Applicants fail to set forth "criteria defining those medicaments that fall under the penumbra of 'protease inhibitors.'" Applicants remind the Examiner that claims 1-22 and 37 have been amended to require an "HIV protease inhibitor." Accordingly, Applicants traverse the Examiner's rejection under section 112, paragraph 2, contending that the term "HIV protease inhibitor" is not indefinite and claims 1-2, 5-15, 18-22, and 37 are in accordance with the requirements of the Patent Law, as set forth in section 112, paragraph 2.

In his rejection under section 112, paragraph 2, the Examiner states that Applicants fail to set defining criteria for HIV protease inhibitors. Applicants have used the term "HIV protease inhibitor" in claims 1-2, 5-15, 18-22, and 37 with the intention that the term be given its plain and ordinary meaning. Therefore, because a special meaning to the term "HIV protease inhibitor" has not been ascribed, Applicants traverse the Examiner's rejection, believing that the term "HIV protease inhibitor" is self defining.

The interpretation of a claim term regarding its definiteness is viewed from the vantage point of the person of ordinary skill in the art. In addition, the claim term is to be read in light of the specification. Hence, because the skilled artisan understands the full scope of the claim when read in light with the specification, the claim term "HIV protease inhibitor" is definite. *See generally, North Am. Vaccine, Inc. v American Cyanamid Co.*, 28 USPQ.2d 1333 (Fed. Cir. 1993). The person of ordinary skill in the art immediately understands what Applicants regard as an HIV protease inhibitor. Essentially, a compound is an HIV protease inhibitor when that compound can inhibit the action of an HIV protease. The skilled artisan knows what an HIV protease is, namely an enzyme that an HIV uses in

replication, and that an HIV protease hydrolyzes certain proteins to allow for viral replication. In addition, the skilled artisan understands what Applicants regard as an inhibitor, and specifically an inhibitor of an HIV protease. Such an inhibitor is a compound that is capable of interfering with or substantially or completely blocking the ability of an HIV protease to hydrolyze the proteins necessary for viral replication. At a certain threshold concentration, an inhibitor of an HIV protease decreases or completely disables the enzyme from hydrolyzing the relevant amide bond. These threshold concentrations are easily determined using conventional and well-understood biochemical methods. Moreover, Applicants teach exemplary methods for determining the inhibition of HIV proteases.

Further, Applicants set forth in the specification a number of illustrative examples of compounds that are HIV protease inhibitors, the same falling within that meaning ascribed to the term "HIV protease inhibitors" by Applicants in the claimed invention. However, while these illustrative examples are provided to add life and meaning to the claim term, they are not to be interpreted as the limiting in any way, or that they represent the only compounds that Applicants regard as HIV protease inhibitors, and useable in the invention as defined by claims 1-2, 5-15, 18-22, and 37. In particular, Applicants provide working examples in the specification wherein nelfinavir, saquinavir, and indinavir were tested, the results of which are described in Applicants' Example 3. In these working examples, an HIV protease is inhibited by nelfinavir, saquinavir, and indinavir. Nelfinavir, saquinavir, and indinavir are known HIV protease inhibitors. In addition, Applicants also generally teach that ritonavir and amprenavir are HIV protease inhibitors. *See*, p. 7, ll. 2-8. Applicants also refer to several U.S. Patents that also describe HIV protease inhibitors, namely U.S. Patent Nos. 5,484,926, 5,484,801, 5,196,438, 5,413,999, 5,585,397. *See* p. 6, line 31 to p. 7, line 8. Each of these patents describe myriad other HIV protease inhibitors. Taken as a whole, all of the description by Applicants and those references included in the instant specification unambiguously support Applicants' clearly defined use of the term "HIV protease inhibitor."

As stated, the enquiry into indefiniteness takes place through the eyes of the person of ordinary skill in the art. Applicants respectfully suggest that the Examiner has confused the concept of overbreadth with the concept of indefiniteness. *See*, *In re Miller*, 441 F.2d 689 (C.C.P.A. 1971). The breadth of a term does not impact the definiteness of that term if the skilled artisan understands and can discern the scope of the term. That the term is large in scope does not translate into an assertion that the term is indefinite. Applicants are entitled to as broad a claim as the prior art allows, and Applicants therefore respectfully point

out that the proper examination of claim breadth does not take place under section 112, paragraph 2. Simply, the person of ordinary skill in the art can discern the metes and bound of the invention by use of the term HIV protease inhibitor, because the skilled artisan understands those compounds that fall within the scope of the term, i.e. compounds that are capable of inhibiting an HIV protease, and simultaneously those compounds that are outside the meaning of the term, namely compounds that are not capable of inhibiting HIV protease. Therefore, because the term "HIV protease inhibitor" is definite, and satisfies the requirements of Section 112, paragraph 2, Applicants respectfully request that the Examiner withdraw the rejection of claims 1-2, 5-15, 18-22, and 37 under that section.

Claims 1-2, 5-15, 18-22, and 37 also stand rejected under 35 U.S.C. § 112, paragraph 1, as not being enabled. The Examiner contends that the specification "fail[s] to adequately teach how to make and/or use the invention," and "fails to provide information that would allow the skilled artisan to practice the instant invention without undue experimentation." Applicants traverse the Examiner's rejections under section 112, paragraph 1, and consider the specification to fully enable the full scope of claims 1-2, 5-15, 18-22, and 37.

In particular, the Examiner states that Applicants "fail[] to set forth the criteria that defines those compounds suitable as 'protease inhibitors' as envisioned for use in the instant invention." Applicants remind the Examiner that claims 1-22 and 37 have been amended to require an "HIV protease inhibitor." Accordingly, Applicants respectfully disagree, believing that the criteria that define those compounds that are suitable as HIV protease inhibitors and useable in the invention as defined by claims 1-2, 5-15, 18-22, and 37 are fully described in patent application as filed. As stated above in response to the pending rejection under section 112, paragraph 2, the person of ordinary skill in the art understands what is an HIV protease inhibitor as recited by Applicants in the instant claims. An HIV protease inhibitor is a compound that interferes with, or substantially or completely prevents the action of an HIV protease. HIV proteases are enzymes used by the human immunodeficiency virus to invade host cells and proliferate or replicate. Inhibitors of HIV proteases prevent those enzymes from hydrolyzing the necessary peptide bond that will allow the virus to reproduce.

In addition, the Examiner contends that Applicants fail to provide information allowing the skilled artisan to ascertain those compounds without undue experimentation. However, Applicants also provide working examples in the specification wherein nelfinavir, saquinavir, and indinavir were tested, the results of which are described in Applicants'

Example 3. In these working examples, an HIV protease is inhibited by nelfinavir, saquinavir, and indinavir. Nelfinavir, saquinavir, and indinavir are known HIV protease inhibitors. In addition, Applicants also generally teach that ritonavir and amprenavir are HIV protease inhibitors. *See*, p. 7, ll. 2-8. Applicants also refer to several U.S. Patents that also describe HIV protease inhibitors, namely U.S. Patent Nos. 5,484,926, 5,484,801, 5,196,438, 5,413,999, 5,585,397. *See* p. 6, line 31 to p. 7, line 8. Each of these patents describe myriad other HIV protease inhibitors. Taken as a whole, all of the description by Applicants and those references included in the instant specification unambiguously support Applicants' clearly defined use of the term "HIV protease inhibitor." The diversity of the illustrative examples specifically delineated in the instant specification provides the skilled artisan with thousands of examples of those compounds that are HIV protease inhibitors.

For example, Applicants refer to U.S. Patent No. 5,484,801, which describes "N-(2(R)-hydroxy-1(S)-Indanyl)-2(R)-phenylmethyl-4(S)-hydroxy-5-(1-(4-(3-pyridylmethyl)-2(S)-N'-(t-butylcarboxamido)-piperazinyl))-pentaneamide; N-tert-butyl-decahydro-2-(2(R)-hydroxy-4-phenyl-3(S)-((N-(2-quinolylcarbonyl)-L-asparaginyl)amino]butyl)-(4aS,8aS)-isoquinoline-3(S)-carboxamide; (1S-(1R*(R*),2S*))-N_1 (3-((((1,1-dimethylethyl)amino)carbonyl)-(2-methylpropyl)amino)-2-hydroxy-1-(phenylmethyl)propyl)-2-((2-quinolinylcarbonyl)amino)-butanediamide; and others. In that patent, the claimed compounds listed above are described as "HIV protease inhibiting compounds." U.S. Patent No. 5,484,801, claim 1. Because that patent has issued, those HIV protease inhibiting compounds are presumed to be fully enabled. Similarly, the other U.S. patents referenced by Applicants on pages 6-7 of the specification as filed also provide the skilled artisan with numerous examples of HIV protease inhibitors. In the wake of this extensive disclosure, Applicants consider the specification to amply enables the person of ordinary skill in the art of with regard to making and using HIV protease inhibitors as recited in Applicants' claimed invention. Therefore, it can hardly be considered undue experimentation on the part of the skilled artisan who needs only to consult the information provided by Applicants in the instant patent application as filed and merely select an HIV protease inhibitors, or select another compounds and determine if it is an HIV protease inhibitor using Applicants fully described and enabled methods for determining inhibition of HIV protease..

For example, Applicants' invention defined by claims 1-2 and 5-7 is drawn to methods for "increasing the concentration of an HIV protease inhibitor in the brain of a patient"; Applicants' invention defined by claims 8-12 are drawn to methods for (ii) "treating

a patient having an HIV-1 infection"; and Applicants' invention defined by claims 13-15, 18-22, and 37 are drawn to pharmaceutical compositions.

To practice the methods defined by claims 1-2 and 5-7, the skilled artisan must (a) select an HIV protease inhibitor, (b) determine the therapeutically effective amount of the selected HIV protease inhibitor, (c) select a compound of formula (I), (d) determine the amount of the selected compound of formula (I) effective to increase the concentration of the HIV protease inhibitor in the brain of the patient, and (e) co-administer the compound of formula (I) and the HIV protease inhibitor to the patient. Each of these steps in the claimed method are enabled by the specification as filed, and therefore in compliance with the requirements of section 112, paragraph 1. In particular, the instant specification teaches (a) a large number and variety of HIV protease inhibitors, (b) the therapeutically effective amounts of such HIV protease inhibitors, (c) the structure and synthesis of compounds of formula (I), (d) the amounts of the compounds of formula (I) effective to increase the concentration of the HIV protease inhibitor in the brain of the patient; and (e) the co-administration of compounds of formula (I) and HIV protease inhibitors to a patient.

To practice the methods defined by claims 8-12, the skilled artisan must (a) select an HIV protease inhibitor, (b) determine the therapeutically effective amount of the selected HIV protease inhibitor, (c) select a compound of formula (I), (d) determine the amount of the selected compound effective to increase brain levels of the HIV protease inhibitor in the HIV-1 infected patient, and (e) co-administer the compound of formula (I) and the HIV protease inhibitor to the patient. Similarly to the enablement discussed above for claims 1-2 and 5-7, each of these steps in the claimed method are enabled by the specification as filed, and therefore in compliance with the requirements of section 112, paragraph 1.

Therefore, the only experimentation required by the person of ordinary skill in the art is to select a candidate HIV protease inhibitor from the panoply of choices specifically described in the instant application, from those compounds incorporated by reference to the various issued U.S. patents (*see generally*, pages 6-7), or from the HIV protease inhibitors well-understood or easily determinable in the art. This selection process does not represent undue experimentation as the Examiner suggests. Applicants have provided all that is required to make this selection, namely that the selected compound be an HIV protease inhibitor. As discussed above, because the person of ordinary skill in the art understands the meaning of the term "HIV protease inhibitor," all information necessary to make and use the invention defined by claims 1-2, 5-15, 18-22, and 37 is presented in the specification or

already in the toolbox of the ordinarily skilled artisan. Once the choice of an HIV protease inhibitor is made, all that is left to practice the invention is routine optimization of doses, also knowledge already possessed by the person of ordinary skill in the art, and described in the specification. From the foregoing, it is understandable that Applicants respectfully disagree with the Examiner who states that "only a limited number of compounds suitable as '[HIV] protease inhibitors' as envisioned for use in the instant invention examples are set forth." Applicant has provided the person of ordinary skill in the art with ample information and an ample number of compounds suitable as HIV protease inhibitors to fully enable to claims.

Notably, the Examiner also asserts that Applicants "fail[] to provide sufficient working examples," and that the unpredictability of the pharmaceutical art "requir[es] each embodiment to be individually assessed for physiological activity."

Applicants respectfully point out that the Examiner's assertion is simply not the law. Exemplification is not absolutely required, and even in the *unpredictable arts*, as the Examiner asserts here, exemplification is only required to the extent necessary to enable the invention. *See, In re Angstadt*, 537 F.2d 498 (C.C.P.A. 1976) (stating that even in the unpredictable arts, the specification need not disclose every species or example covered by the claims). It is certainly not a defacto requirement that each embodiment must be set forth as a working example. Though the Examiner asserts that the pharmaceutical art is unpredictable, Applicants believe that he goes too far when he asserts that such alleged unpredictability "requir[es] each embodiment to be individually assessed for physiological activity." Regardless, and as already stated above, Applicants have provided a sufficient number of working examples in nelfinavir, saquinavir, and indinavir. Further, these three examples are generally representative of the full scope of Applicants' invention as defined by claims 1-2, 5-15, 18-22, and 37. Applicants therefore believe that a sufficient number of working examples have been provided in the specification, even this allegedly unpredictable pharmaceutical art.

Further, the Examiner believes that "these examples [do not] define the class of compounds required." Applicants disagree with the Examiner that the examples set forth in the specification fail to define the class of compounds required. As stated, the required compounds, namely HIV protease inhibitors, are defined by the examples and references contained in the application as filed. In particular, Example 3 describes nelfinavir, saquinavir, and indinavir, each of which is an HIV protease inhibitor and falls within the scope of claims 1-2, 5-15, 18-22, and 37. This body of information is sufficient to arm the skilled artisan with all that is necessary to make and use the claimed invention.

Thus, Applicants respectfully suggest that the Examiner has not met his burden of showing why the representations made in the specification are insufficient to enable the entire scope of the protections sought, and Applicants point out that a broad brushing statement that the pharmaceutical art is unpredictable without a more specific explanation as to why Applicants' claimed invention is therefore not enabled is insufficient to sustain the rejection here. *See, In re Wright*, 999 F.2d 1557 (Fed. Cir. 1993).

Finally, the Examiner suggests that because a search of the prior art would be difficult, Applicants have somehow failed to enable their invention, stating, "The instant claims read on all compounds suitable as 'protease inhibitors' as envisioned for use in the instant invention, necessitating an exhaustive search for the embodiments suitable to practice the claimed invention." Applicants respectfully point out to the Examiner that they are entitled to as broad a claim as the prior art allows, and it is improper for the Examiner to suggest that due to the burdens on the Office with regard to the searchability of Applicants' claimed invention that Applicants have failed to comply with the Patent Statute. Applicants believe that the rejection of the instant application under section 112 for lack of enablement may not be sustained on the basis of the complexity or difficulty associated with conducting a prior art search. *See, Ex parte C*, 27 USPQ.2d 2492 1495-96 (stating that "there is nothing in 35 U.S.C. Section 112 which supports a rejection on the ground that the specification does not provide enough information for the examiner to formulate a search and examine the application"). Simply, questions of enablement are not resolved by the complexity of any search that the Examiner may consider appropriate in assessing the patentability of the instant invention.

Instead, enablement is a separate question that takes place from the vantage point of the person of ordinary skill in the art. If the skilled artisan, armed with the teachings of the instant specification and the basic knowledge automatically attributed to him, can make and use the invention, the same is enabled within the meaning of section 112, paragraph 1. The searching burdens placed on the Office notwithstanding, Applicants have provided the skilled artisan by way of the description of the invention in the instant application with all that is needed to practice the full scope of the invention defined by claims 1-2, 5-15, 18-22, and 37. Therefore, Applicants respectfully request that the Examiner's rejection of those claims under section 12, paragraph 1 be reconsidered, leading to its withdrawal.

Claims 1-22 and 37 also stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim et al. in view of Pfister et al. The Examiner states that Kim et al. teaches "the claimed anti-retroviral compounds as old and well known in combination with

various pharmaceutical carriers and excipients in a dosage form." The Examiner states further that Kim et al. teaches that those medicaments are "useful for treating HIV infections," but "their therapeutic efficiency [is] compromised by P-glycoprotein mediated transport systems." The Examiner states further that Kim et al. teaches "the inhibition of P-glycoprotein transport systems as facilitating the activity of anti-retroviral medicaments." However, the Examiner acknowledges that Kim et al. is silent to "1) the concomitant employment of the claimed medicaments, and 2) administration of various methanodibenzosuberane compounds to inhibit a P-glycoprotein medicament transport system," as required by claims 1-22. Nevertheless, the Examiner contends that it is "*prima facie* obvious to combine compounds each of which is taught in the prior art to be useful for the same purpose, in order to form a composition which is to be used for the very same purpose."

Though Applicants respectfully disagree with the Examiner's position that it is *prima facie* obvious to combine components in the manner asserted by the Examiner, the point is moot because neither Kim et al. nor Pfister et al. teach a compound of formulae (I) or (II) for the purpose of treating HIV.

Kim et al. is directed to determining whether the HIV protease inhibitors indinavir, nelfinavir, and saquinavir are substrates of P-glycoprotein efflux pumps. In fact, Kim et al. states that HIV protease inhibitors are indeed substrates of P-glycoprotein efflux pumps based on experiments. Kim et al. discloses that in a P-glycoprotein knockout model (*mdrla* (-/-) mice), the tissue distribution of the HIV protease inhibitors indinavir, nelfinavir, and saquinavir, is altered compared to wild type. This altered tissue distribution is offered by Kim et al. to support the conclusion that indinavir, nelfinavir, and saquinavir are substrates of P-glycoprotein. Further, Kim et al. discloses an *in vitro* assay measuring transepithelial transport of indinavir, nelfinavir, and saquinavir across a Caco-2 cell culture monolayer. In the presence of quinidine and PSC-833, both disclosed by Kim et al. as inhibitors of P-glycoprotein function, indinavir, nelfinavir, and saquinavir were shown to have differential basal-to-apical and apical-to-basal transport.

Regardless, Kim et al. teaches away from the use of P-glycoprotein inhibitors in combination with HIV protease inhibitors, stating, "A complicating factor in the case of protease inhibitors is the likelihood that available modulators of P-glycoprotein activity also have the potential to inhibit the metabolism of HIV protease inhibitors themselves and therefore alter their systemic availability and elimination characteristics." P. 293, col. 2, para. 3. Therefore, Kim et al. is incapable of providing the motivation necessary to combine

an HIV protease inhibitor with a P-glycoprotein inhibitor, because that reference teaches away from the very combination made by Applicants, namely co-administration of an HIV protease inhibitor and a compound of formula (I) or (II). In fact, Applicants also teach in the instant specification that concurrent inhibition of the metabolism of HIV protease inhibitors, such as by inhibition of P450 enzymes in the plasma may limit the benefit of treatment regimens involving HIV protease inhibitors combined with P-glycoprotein inhibitors, as claimed by Applicants.

Applicants' invention s defined by claims 1-22 and 37 requires a P-glycoprotein inhibitor of formula (I) or (II) in combination with an HIV protease inhibitor. A reference that dissuades the person from ordinary skill in the art from engaging in the very experimentation needed to arrive at Applicants' inventive combination cannot be fairly characterized as motivating. Moreover, such a reference is also incapable of rendering that invention obvious. Because Kim et al. teaches away from the combination of an HIV protease inhibitor and a P-glycoprotein inhibitor, and teaching away from an invention is the very epitome of the non-obvious requirement of section 103, Applicants' invention as defined by claims 1-22 and 37 cannot be fairly held to be unpatentable over Kim et al. in any respect.

Regardless, Pfister et al. also fails to motivate the person of ordinary skill in the art to combine an HIV protease inhibitor with a P-glycoprotein inhibitor of formula (I) or (II), despite the teachings to the contrary of Kim et al. Pfister et al. is directed to a treatment of multidrug resistance, a condition encountered with certain cancer chemotherapy treatment regimens. Certain methanodibenzosuberane compounds are disclosed as useful for treating multidrug resistant cancers when combined with cancer chemotherapy agents. Importantly, Pfister et al. is silent to the treatment of HIV in any respect, including by using HIV protease inhibitors. Therefore, Pfister et al. does not motivate the person of ordinary skill in the art to take from its disclosure the methanodibenzosuberane compounds taught as P-glycoprotein inhibitors and combine them with HIV protease inhibitors.

Further, Pfister et al. is completely silent to the complications of combining HIV protease inhibitors with P-glycoprotein inhibitors that are taught by Kim et al., regarding the potential for concurrent inhibition of metabolism of plasma level of HIV protease inhibitors. Applicants also note that Pfister et al. (1997) predates Kim et al. (1998). Thus, the skilled artisan may assume that the equally skilled artisans auithoring Kim et al. had access Pfister et al. If there were potential in Pfister et al., Kim et al. would have been motivated to exploit the same, and yet Kim et al. not only ignores the teachings of Pfister et al. regarding the methanodibenzosuberanes disclosed therein, but generally teaches away

from all P-glycoprotein inhibitors because of the potential for unwanted metabolic inhibition. Hence, the skilled artisan looking to modify the teachings of Kim et al. would not look to Pfister et al. because this earlier reference has been limited in any of its potential application to the treatment of HIV by the later teachings of Kim et al. Those teaching are directed to the particular problems associated with a combination of an HIV protease inhibitor and a P-glycoprotein inhibitor, which is to be used in the treatment of HIV, because of the "complicating factor" of inhibiting the metabolism of HIV protease inhibitors in plasma for example.

Moreover, Pfister et al. does not present a problem to be solved. *See*, *In re Rouffet*, 149 F.3d 1350, 1357 (Fed, Cir, 1998). Pfister et al. describes a method for treating multidrug resistance with a compound of formula (I). Pfister et al. is completely silent to treating HIV with a combination of a compound of formula (I) and an HIV protease inhibitor. Simply, the person of ordinary skill in the art would not be motivated to look to the teachings of Pfister et al. who describes only the treatment of multidrug resistance to solve any problems found in Kim et al. regarding the treatment of HIV with an HIV protease inhibitor. *See generally*, MPEP § 2143.01 (stating that the prior art must suggest the desirability of the claimed invention). Further, given that Kim et al. teaches away from solving those problems in treating HIV by including a P-glycoprotein inhibitor, Pfister et al. will simply not be consulted, and the combination is improper as lacking the motivation required to render Applicants' claims obvious. Applicants respectfully suggest that the required motivation can only be discerned from Applicants' novel and nonobvious discovery that a combination of an HIV protease inhibitor and a the P-glycoprotein inhibitors, as defined by formulae (I) and (II), is useful in the treatment of HIV.

In not one of the references cited by the Examiner is there present the requisite motivation to combine the teachings of Pfister et al. with those of Kim et al. Even assuming arguendo that the motivation were present in Kim et al. to include a P-glycoprotein inhibitor in the treatment of HIV with an HIV protease inhibitor, Kim et al. falls well short of motivating the person of ordinary skill in the art to select the compounds of formulae (I) and (II) from the myriad possibilities. Again assuming arguendo that the motivation to search for a P-glycoprotein is present in Kim et al., that reference at best can only provide motivation rising to the level that it is simply obvious to try. Such motivation is insufficient to suggest that the compounds of formula (I) and (II) among the potentially hundreds of possibilities. *See generally*, MPEP § 2145, Part X (discussing that a mere recognition that it is obvious to

try one of many possibilities without more is insufficient motivation under the meaning of section 103 to render a claim obvious over the prior art).

Therefore, Applicants' invention as defined by claism 1-22 and 37 cannot be fairly characterized as being obvious of Kim et al. in view of Pfister et al. Applicants respectfully request reconsideration of the Examiner's rejection under Section 103(a).

Based on the foregoing, Applicants consider that the invention defined by claims 1-22 and 37 are in condition for allowance by demonstrating that claims 1-2, 5-15, 18-22, and 37 meet the requirements of definiteness and enablement of 35 U.S.C. § 112, paragraphs 1 and 2, and that claims 1-22 and 37 meet the patentability requirements of 35 U.S.C. § 103. Applicants request reconsideration of the standing rejections, leading to their withdrawal, and passage of the instant application to issue.

Respectfully submitted,
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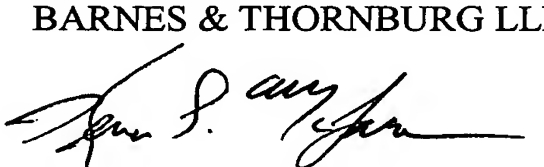

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